



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,237	09/30/2003	Ted Ju	VX032562	1580
21369	7590	12/13/2004	EXAMINER	
VARNDELL & VARNDELL, PLLC 106-A S. COLUMBUS ST. ALEXANDRIA, VA 22314			STONER, KILEY SHAWN	
			ART UNIT	PAPER NUMBER
			1725	
DATE MAILED: 12/13/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

ms

Office Action Summary	Application No.	Applicant(s)	
	10/673,237	JU, TED	
	Examiner	Art Unit	
	Kiley Stoner	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6 and 10 is/are rejected.
- 7) ☒ Claim(s) 2-5,7-9 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Takagi (JP-410125684A).

Takagi (JP-410125684A) teaches providing a solder slab; providing a complementary means having a plurality of through holes; providing a circuit element composed of an insulating body and a plurality of conducting terminals embedded in the insulating body, each of the conducting terminals having a solder-retaining unit at one end; and placing the circuit element under the complementary means and the solder slab above the complementary means, injecting a plurality of solder bits taken from the solder slab by a punching device through the complementary means into the solder-retaining units of the conducting terminals (abstract and Figures 2a-c and 4a-c). It is inherent that the bottom surface of the pads (#10) are embedded in the top surface of the workpiece (#12).

Claims 1, 6 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by (JP-09326552A). (JP-09326552A) teaches providing a solder slab; providing a complementary means having a plurality of through holes; providing a circuit element

composed of an insulating body and a plurality of conducting terminals embedded in the insulating body, each of the conducting terminals having a solder-retaining unit at one end; and placing the circuit element under the complementary means and the solder slab above the complementary means, injecting a plurality of solder bits taken from the solder slab by a punching device through the complementary means into the solder-retaining units of the conducting terminals (Abstract and Figures 1-2). It is inherent that the bottom surface of the pads are embedded in the top surface of the workpiece. In the broadest possible interpretation, the flux applied to the top surface of the pads has been considered by the Examiner to be a solder retaining unit (abstract). The solder flux will inherently stick the solder foil to the top surface of the pad.

(JP-09326552A) also teaches one end of each of the conducting terminals is a solder joint having a solder retaining unit for mounting a solder bit (abstract and Figures 1-2); the solder retaining units are solder binder applied to each of the top surface of the solder joints for adhesively mounting a solder bit (abstract and Figures 1-2). The solder flux is a binder.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by (JP-06045740A). (JP-06045740A) teaches providing a solder slab; providing a complementary means having a plurality of through holes; providing a circuit element composed of an insulating body and a plurality of conducting terminals embedded in the insulating body, each of the conducting terminals having a solder-retaining unit at one end; and placing the circuit element under the complementary means and the solder

Art Unit: 1725

slab above the complementary means, injecting a plurality of solder bits taken from the solder slab by a punching device through the complementary means into the solder-retaining units of the conducting terminals (abstract and Figures). It is inherent that the bottom surface of the pads (#5) are embedded in the top surface of the workpiece (#7).

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 6 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Tellkamp et al. (US-20040135251 A1).

The 35 U.S.C. 102(e) date for a nonprovisional application claiming the benefit of a prior provisional application (35 U.S.C. 111(b)) is the filing date of the provisional application.

Tellkamp et al. teaches providing a solder slab; providing a complementary means having a plurality of through holes; providing a circuit element composed of an insulating body and a plurality of conducting terminals embedded in the insulating body, each of the conducting terminals having a solder-retaining unit at one end; and placing the circuit element under the complementary means and the solder slab above the complementary means, injecting a plurality of solder bits taken from the solder slab by a punching device through the complementary means into the solder-retaining units of the conducting terminals (Abstract; Figures; and Claims 15-19). It is inherent that the

Art Unit: 1725

bottom surface of the pads (#203b) are embedded in the top surface of the workpiece (#203). In the broadest possible interpretation, the flux applied to the top surface of the pads (#203b) has been considered by the Examiner to be a solder retaining unit (paragraph [0044]). The solder flux will inherently stick the solder platelet to the top surface of the pad.

Tellkamp et al. also teaches one end of each of the conducting terminals is a solder joint having a solder retaining unit for mounting a solder bit (abstract; Figures; paragraph [0044]; and Claims 15-19); the solder retaining units are solder binder applied to each of the top surface of the solder joints for adhesively mounting a solder bit (abstract; Figures; paragraph [0044]; and Claims 15-19). The solder flux is a binder.

Allowable Subject Matter

Claims 2-5, 7-9 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art of record that is cited as of interest is presented on the form-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiley Stoner whose telephone number is (571) 272-1183. The examiner can normally be reached on Monday-Thursday (7:30 a.m. to 6:00 p.m.).

Art Unit: 1725

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on Monday-Friday at (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KILEY S. STONER
PRIMARY EXAMINER

Kiley Stoner 12/7/04